

G2

38. (Thrice Amended) The cellular composition of claim 49, wherein said stem cells express nestin.

Rub H2

41. (Twice Amended) The cellular composition of any of the claims 49-53, wherein said stem cells are transfected with a heterologous gene.

Rub H3

42. (Amended) The cellular composition of claim 41, wherein said gene encodes a trophic factor.

Rub H4

43. (Twice Amended) A mitotic cell that is the progeny of a stem cell of any of the claims 49-53.

44. (Twice Amended) A differentiated cell that is the progeny of a stem cell of any of the claims 49-53.

45. (Reiterated) The differentiated cell of claim 44, wherein said cell is selected from the group consisting of a neuron, an astrocyte, and an oligodendrocyte.

46. (Reiterated) A pharmaceutical composition comprising a mitotic or differentiated cell that is the progeny of a stem cell isolated from a peripheral tissue of a postnatal mammal, wherein said peripheral tissue comprises a sensory receptor, and a pharmaceutically acceptable carrier, auxiliary or excipient.

Rub H5

47. (Thrice Amended) A pharmaceutical composition comprising a purified stem cell population isolated from a peripheral tissue of a postnatal mammal, wherein said peripheral tissue comprises a sensory receptor, and a pharmaceutically acceptable carrier, auxiliary or excipient.

Rub H7

49. (Thrice Amended) A cellular composition of stem cells of a mammal, said stem cells produced by a method comprising the steps of:

(a) providing a culture of peripheral tissue containing sensory receptors from said mammal;

*Defn 475*  
(b) isolating stem cells from said peripheral tissue, based on the tendency of said stem cells to aggregate and form non-adherent clusters in culture, wherein said stem cells are capable of producing neurons and glia.

50. (Reiterated) A cellular composition comprising a purified population of mammalian stem cells, which stem cells form non-adherent clusters in culture, are self renewing, express nestin and glutamic acid decarboxylase (GAD), and differentiate into cell types of the central nervous system.

*Defn 487*  
51. (Reiterated) A cellular composition comprising a purified population of mammalian stem cells, which stem cells form non-adherent clusters in culture, are self renewing, express nestin, and differentiate into dopaminergic neurons.

52. (Reiterated) A cellular composition comprising a purified population of mammalian stem cells, which stem cells form non-adherent clusters in culture, are self renewing, proliferate in an EGF-independent manner, and differentiate into cell types of the central nervous system.

53. (Reiterated) A cellular composition comprising stem cells prepared by the method comprising:

(a) culturing a dissociated sample of epithelial tissue;  
(b) isolating, from the culture, non-adherent neural stem cells that are self renewing, proliferate in an EGF-independent manner, and differentiate into cell types of the central nervous system.

54. (Reiterated) The cellular composition of any of the claims 50, 51, or 53, which stem cells proliferate in an EGF-independent manner.

*Defn 489*  
55. (Reiterated) The cellular composition of claim 54, which stem cells differentiate, in the presence of serum, into neurons expressing tyrosine hydroxylase.

*66*  
56. (Amended) The cellular composition of any of the claims 49-54, which stem cells differentiate into cells expressing at least one marker selected from the group consisting of Glial

66 Fibrillary Acid Protein (GFAP), neurofilament 160,  $\beta$  III tubulin, NeuN, galactocerebroside, tyrosine hydroxylase, and dopamine  $\beta$ -dehydrogenase.

*Reit Hg*

57. (Reiterated) The cellular composition of any of the claims 49-54, which stem cells differentiate, in the presence of serum, into dopaminergic cells.

58. (Reiterated) The cellular composition of any of the claims 49-54, which stem cells are human stem cells.

59. (Reiterated) A cellular composition of differentiated cells of claim 44, 49-54, wherein said differentiated cells expresses tyrosine hydroxylase.

*Reit Hg*

60. (Amended) The cellular composition of any of claims 49-54, formulated in a pharmaceutically acceptable carrier, auxiliary or excipient.

The amended claims are restated below to reflect changes from the last filing

32. (Twice Amended) The cellular composition [cell] of claim 49, wherein said peripheral tissue comprises olfactory epithelium.

33. (Twice Amended) The cellular composition [cell] of claim 49, wherein said peripheral tissue comprises tongue.

38. (Thrice Amended) [A culture of the non-adherent cells] The cellular composition of claim 49, wherein said stem cells express nestin.

41. (Twice Amended) [A cell] The cellular composition of any of the claims 49-53, wherein said [cell] stem cells are transfected with a heterologous gene.

42. (Amended) The cellular composition [precursor cell] of claim 41, wherein said gene encodes a trophic factor.

43. (Twice Amended) A mitotic cell that is the progeny of a stem cell of any of the claims 49-53.

44. (Twice Amended) A differentiated cell that is the progeny of a stem cell of any of the claims 49-53.

47. (Thrice Amended) A pharmaceutical composition comprising a purified stem cell population isolated from a peripheral tissue of a postnatal mammal, wherein said peripheral tissue comprises a sensory receptor, and a pharmaceutically acceptable carrier, auxiliary or excipient.

49. (Thrice Amended) A cellular composition of stem cells [cell] of a mammal, said stem [cell] cells produced by a method comprising the steps of:

- providing a culture of peripheral tissue containing sensory receptors from said mammal;
- isolating [a] stem cells [cell] from said peripheral tissue, based on the tendency of said stem cells [cell] to aggregate and form non-adherent clusters in culture, wherein said stem [cell] cells are capable of producing neurons and glia[; and
- transplanting said stem cell into the central nervous system of said mammal].

56. (Amended) The cellular composition of any of the claims 49-54, which stem cells differentiate into cells expressing at least one [or markers] marker selected from the group consisting of Glial Fibrillary Acid Protein (GFAP), neurofilament 160,  $\beta$  III tubulin, NeuN, galactocerebroside, tyrosine hydroxylase, and dopamine  $\beta$ -dehydrogenase.

60. (Amended) The cellular composition [comprising] of any of claims 49-54, formulated in a pharmaceutically acceptable carrier, auxiliary or excipient.